

MIAMI-SOUTH FLORIDA

National Weather Service Forecast Office

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RECORD WARM APRIL IN WEST PALM BEACH, FORT LAUDERDALE AND MIAMI!

SECOND WARMEST APRIL ON RECORD FOR THE NAPLES AREA

BELOW AVERAGE RAINFALL IN APRIL ACROSS MOST OF SOUTH FLORIDA

Warm temperatures last month more resembled what south Florida should expect in May, rather than typical April conditions. Record warm monthly average temperatures were observed at the West Palm Beach, Fort Lauderdale, and Miami climate locations. All three of these sites go down in the record books as having experienced the warmest April on record.

Naples was slightly cooler for the month, with an average temperature that ranked 2nd warmest. The warmest April recorded for the Naples area was in 1946, when the average monthly temperature was 78.9 degrees Fahrenheit.

Below are the average April 2011 temperatures and departure from normal at the 4 south Florida climate locations. Temperature values are listed in degrees Fahrenheit.

APRIL 2011 TEMPERATURES/DEPARTURE FROM NORMAL AND RANKS

Station – Beginning of Records	2011	Dep. fm Normal	Rank
FORT LAUDERDALE – 1912	79.1	+4.9	WARMEST
MIAMI – 1895	80.1	+4.4	WARMEST
NAPLES – 1942	78.1	+5.6	2ND WARMEST
WEST PALM BEACH – 1888	80.2	+6.4	WARMEST

South Florida climate locations in Naples, West Palm Beach, and Fort Lauderdale registered rainfall amounts well below half of the 30-year average at these locations. Naples Municipal Airport was the driest observation site for the month of April, having received only 0.17 inches of rain.

While Naples was not quite dry enough to claim a top-5 ranking for driest April on record, this 0.17 does rank as the 10th driest since data collection began in 1942. The driest April observed had no rainfall for the entire 30-day period, and this has happened on 3 separate occasions – 2006, 1967, and 1946.

Palm Beach International airport received 0.30 inches of rainfall in April, making it the 6th driest April on record for the area. Records began in the West Palm Beach area in 1888. The driest April observed was in 1967 when only 0.04 inches of rainfall was measured.

Rainfall at the Fort Lauderdale/Hollywood International Airport was still more than 2 inches below normal, but did manage to break the 1-inch mark. The driest April on record for the Fort Lauderdale area was in 1946 with a mere 0.02 inches of rainfall. Data records for Fort Lauderdale go back to 1912.

Miami international airport was the sole climate station to report a precipitation surplus by the end of the month. A daily rainfall record was set there on April 29th, when 2.58 inches of rainfall was measured. The previous record for the date was 1.26 inches in 1957. The rain received that day was also the reason the rainfall deficit for the month was replaced with a 2-inch surplus.

Lack of precipitation last month left the majority of reporting sites throughout south Florida with significantly lower than normal rainfall amounts. Cooperative observing stations throughout the southern peninsula region reveal impressive differences compared to rainfall totals of April 2010.

Below are preliminary rainfall totals for April 2011 at south Florida observation locations, comparing 2011 to 2010 and the departures from normal values.

APRIL 2011 RAINFALL TOTALS/DEPARTURE FROM NORMAL/2010 IN INCHES

Station – Beginning of Records	2011	Dep. fm Normal	2010	Dep. fm 2010
BIG CYPRESS	1.90		8.39	-6.49
BRIGHTON RESERVATION	1.01		3.35	-2.34
CANAL POINT – 1941	0.93	-1.49	3.82	-2.89
FORT LAUDERDALE – 1912	1.31	-2.60	7.29	-5.98
FORT LAUDERDALE BEACH	1.17	-2.74	10.27	-9.10
HOLLYWOOD – 1963	0.90	-2.26	7.99	-7.09
HOMESTEAD	2.35		3.50	-1.15
HIALEAH	2.45	-1.45	6.98	-4.53
IMMOKALEE	3.78	+1.42	7.21	-3.43
JUNO BEACH	2.48		7.01	-4.53
KEY BISCAINE	2.66		4.43	-1.77

LABELLE – 1929	0.87	-1.42	4.53	-3.66
LOXAHATCHEE	0.21		5.50	-5.29
MARCO ISLAND	1.13		3.84	-2.71
MIAMI – 1855	5.36	+2.00	8.95	-3.59
MIAMI BEACH – 1927	1.62	-1.19	8.25	-6.63
MOORE HAVEN – 1918	2.15	-0.20	4.11	-1.96
MUSE	0.79		6.70	-5.91
NAPLES – 1942	0.17	-1.82	4.68	-4.51
OCHOPEE	0.30	-2.64	4.21	-3.91
PALM BEACH GARDENS	1.69		4.99	-3.30
PERRINE	2.01	-1.59	4.20	-2.19
SOUTH BAY	1.71		3.78	-2.07
WEST PALM BEACH – 1888	0.30	-3.27	6.25	-5.95
WFO MIAMI – SWEETWATER/FIU	3.66		7.47	-3.81

NORMAL VALUES ARE THE 1979-2000 CLIMATIC AVERAGES, BUT ARE NOT AVAILABLE FOR ALL OBSERVING LOCATIONS.

These warm and dry conditions were the result of generally high pressure across the southeast last month (Figure 1). Even though cold fronts were still able to penetrate the peninsula and reach down to south Florida, most of these were not accompanied by cooler air or significant rainfall.

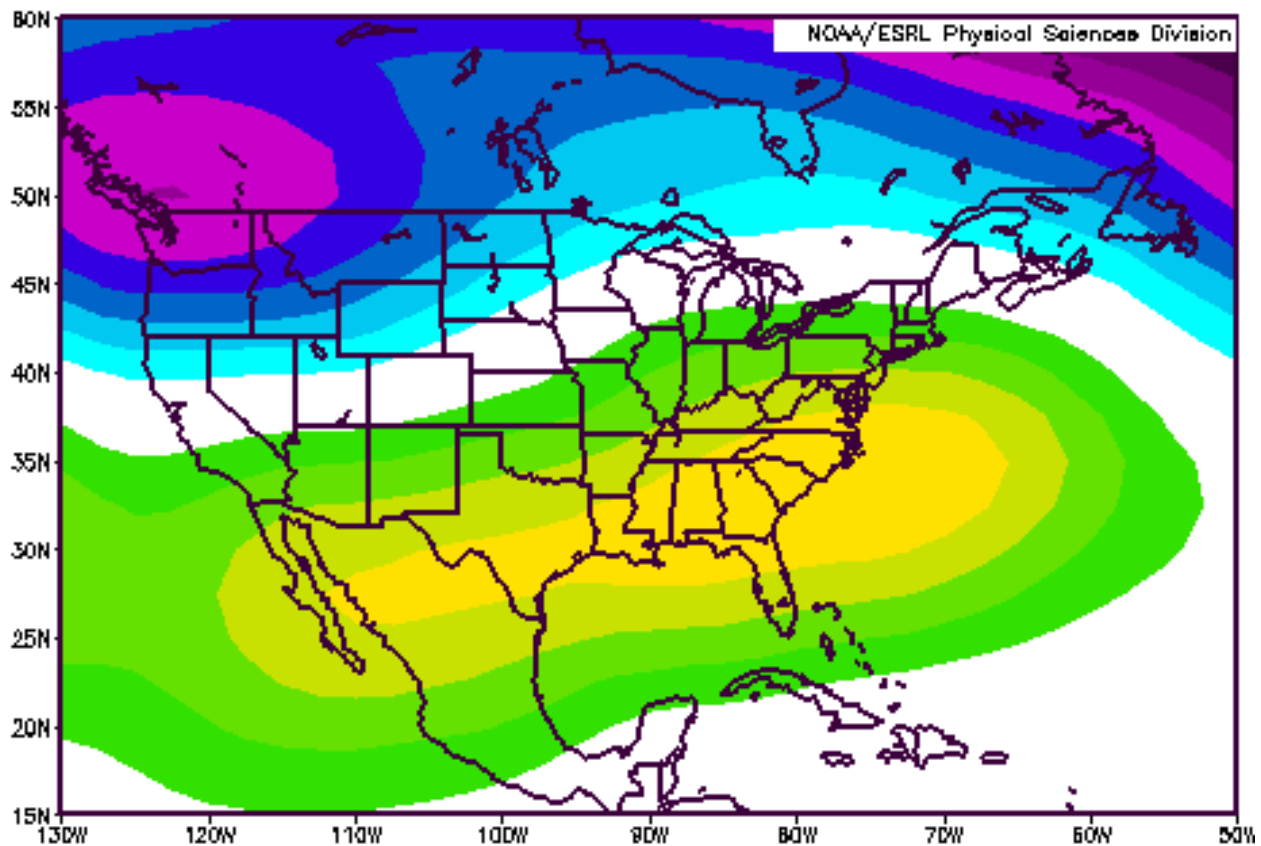


FIGURE 1: MEAN 500 MB (MID-ATMOSPHERIC) PATTERN FROM FEBRUARY 2011 THROUGH APRIL 2011. HIGH PRESSURE (GREEN/YELLOW AREAS) CONTINUED TO DOMINATE THE PATTERN ACROSS THE SOUTHEASTERN UNITED STATES, ASSISTING WITH WARMER TEMPERATURES AND LOWER RAINFALL AMOUNTS THROUGHOUT SOUTH FLORIDA.

The drier than normal April culminated what was a drier to much drier than normal dry season across south Florida. The dry season began on October 4th of last year, about 2 weeks ahead of schedule, and will probably end in the next couple of weeks as moisture and instability continue to increase as we approach summer. Most areas received less than half of the normal rainfall for the 6-month period from October to April (Figure 2). This led to Fort Lauderdale and West Palm Beach having their second driest October to April period on record, with Naples not far behind with their 4th driest.

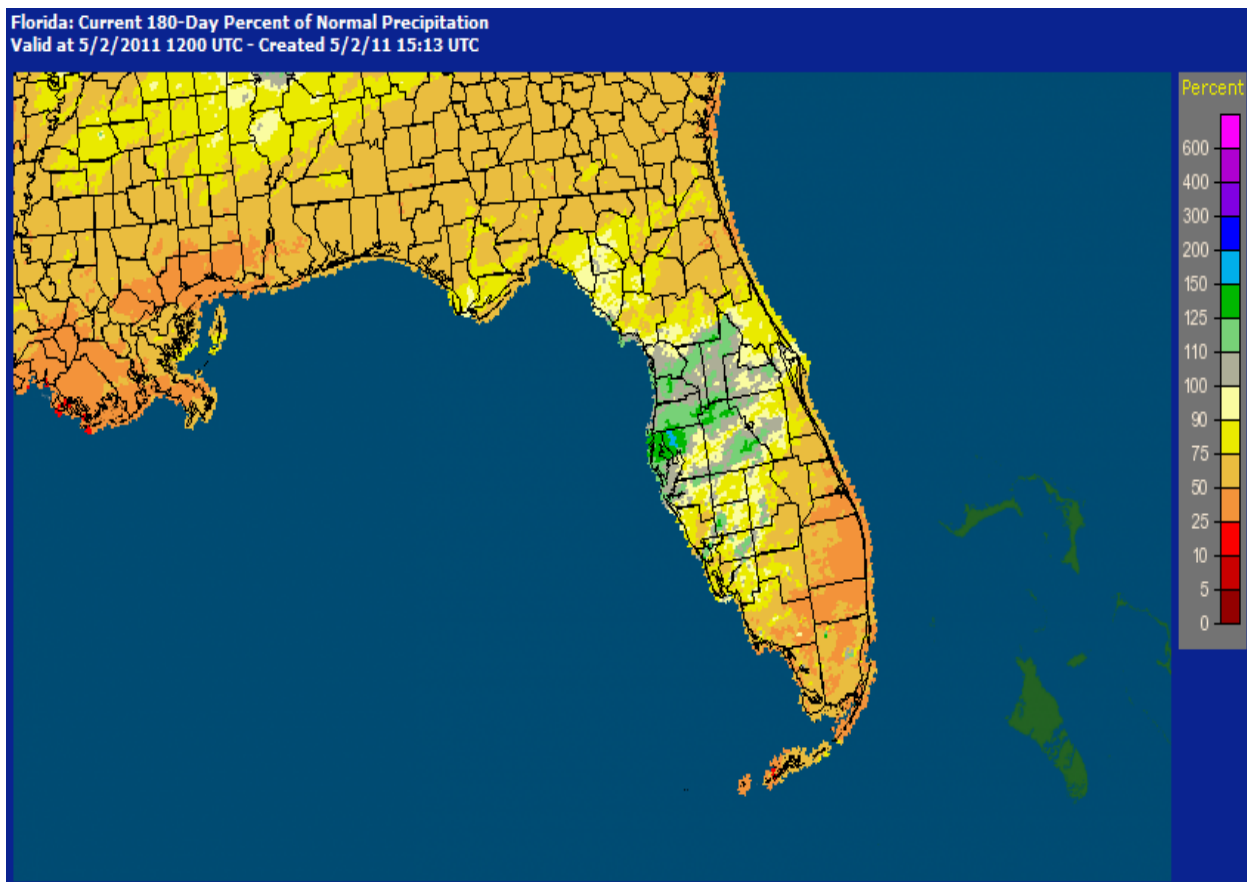


FIGURE 2: OCTOBER 2010 TO APRIL 2011 PERCENT OF NORMAL RAINFALL. DARK ORANGE AREAS DEPICT VALUES OF 25 TO 50 PERCENT OF NORMAL. LIGHT ORANGE AREAS DEPICT VALUES OF 50 TO 75 PERCENT OF NORMAL AND YELLOW AREAS INDICATE 75 TO 90 PERCENT OF NORMAL RAINFALL.

Following are rainfall totals and departure (in inches) from October 1, 2010 through April 30, 2011

OCTOBER 2010 - APRIL 2011 RAINFALL TOTALS/DEPARTURE FROM NORMAL IN INCHES

Station – Beginning of Records	Oct 2010 to April 2011	Dep. fm Normal/Percent of Normal	Rank
FORT LAUDERDALE – 1912	9.05	-16.96/35%	2 nd DRIEST
MIAMI – 1895	14.41	-7.26/67%	22 nd DRIEST
NAPLES – 1942	5.01	-10.36/33%	4 th DRIEST
WEST PALM BEACH – 1888	9.27	-18.43/34%	2 nd DRIEST

LOOKING AHEAD...

La Niña persists across the Pacific region, but is expected to [resemble more of an El Niño Southern Oscillation \(ENSO\) neutral state by June](#). La Niña periods typically coincide with warmer and drier conditions across the southeast United States, as recently experienced in south Florida. A neutral ENSO phase tends to allow for more average to above normal rainfall amounts across the local area, with later this summer and early-fall forecast to be especially wetter than normal. Long-range temperature forecasts from the [Climate Prediction Center](#) call for above-average temperatures this summer throughout Florida.

A more detailed outlook for the upcoming wet season will be issued in the coming days.